

ABSTRACT OF THE DISCLOSURE

2 An apparatus and a method for performing an efficient address search in an ethernet switch
3 having a plurality of ports, said apparatus having a local search unit corresponding to each of the
4 plurality of ports; wherein the local search unit includes: a plurality of local search blocks for
5 analyzing a destination address of an input packet received in the port thereof to search for a
6 transmission port of the ethernet switch and provide a source address thereof; a main search unit for
7 analyzing the source address to establish an address data structure of the plurality of local search
8 blocks, and for responding to a destination address request from at least one of the plurality of local
9 search blocks to provide the requested destination address to a corresponding local search block by
10 using the address data structure; and a scheduler for controlling the local search blocks and the main
11 search unit to enable an interface therebetween.